

The design philosophy of laboratory

Chemistry lab is an important base for schools, teaching and research. And It is also an important landmark for reflecting the quality of school education, scientific research and management level . Laboratory planning, construction and management must implement the national education policy, to continuously reform and to experiment and innovate links, actively carry out scientific and technological development and training with the "knowledge, ability and quality," a comprehensive, modern scientific and technological talents, and achieve a high level of scientific research results, then to serve the society

Work environment in laboratory and office is different, it is a boring and annoying workplace. we should take hold of " people-oriented" in the design process. And the prerequisite for our success is how to design the safe overall design, functional products, beautiful and practical furniture. Facing different customers and different laboratories, sales staff how to pass the customer's exact information to the design department, hen design department how to carry out reasonably design to give customers an "economic, practical and safe" as a new laboratory design, which is we need to finish.

Laboratory Practices requirements:

(1) bench height requirements

According to the human engineering mechanics, sit-operated laboratory bench height is 750 ~ 850mm;-stand-operated height is 850 ~ 920mm. Reagent shelf height is 1200 ~ 1650mm. High cabinet is 1800 ~ 2200mm

(2) exit

Common laboratory door width is 900 ~ 1500mm, and equip a security door, internal operational processes requires smooth, to prevent the there-channel blocking phenomenon when crisis situations happens, usually design common-island, peninsula-type, L-shaped, U-shaped, etc. to be the program of laboratory layout. The space should be longer than 1500mm between the main

channel and two double-sides central operation, while the one-way distance for side bench is more than 1200mm. The distance of double-sided operation for Detoxification cabinet is longer than 1500mm.

(3) ventilation system

1, ventilation and gas pipeline need to meet the safety requirements : project must meet Chemistry Laboratory class safety requirements, such as fire, explosion, corrosion, anti-leak, anti-lightning strike, ensure that the ventilation detoxification system is running in safe mode, security requirements section an most important factor in this project.

a) the full realization of the functional requirements: ensuring the system security then realize full realization of the ventilation system, ventilation and thorough detoxification functions, and, through integrated noise reduction, to create a relatively comfortable environment for experimental work.

b) meet the economical principles: ensuring the system security, the full realization of system functions under the premise of optimizing control system, optimize the fans, to realize the construction costs reduction and the purpose of operating cost savings

c) ensure that the system of technological advance: by optimizing the piping systems and air distribution, fully consider situation of ventilation surface, the management system composition, muffler facilities, fan operation and system control such as those combination factors. Making use of new composite materials and advanced numerical frequency control technology and system technology to achieve a leading, reliable, energy saving, durable purpose.

(4) Safety Equipment

a) wash desktop installation (two-headed, single-head)

b) shower eyewash device

c) the security box is placed at the obvious, easily accessible place